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09/751,601	12/29/2000	David I. Poisner	042390P9938	8581

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EXAMINER

SURYAWANSHI, SURESH

ART UNIT	PAPER NUMBER
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2185

DATE MAILED: 12/12/2003

5

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

09/751,601

Applicant(s)

POISNER, DAVID I.

Examiner

Suresh K Suryawanshi

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 29 December 2000.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-16 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-16 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 29 December 2000 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. §§ 119 and 120

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some \* c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  
\* See the attached detailed Office action for a list of the certified copies not received.
- 13) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.  
a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_\_ 6) ☐ Other: \_\_\_\_\_

**DETAILED ACTION**

1. Claims 1-16 are presented for examination.

***Claim Rejections - 35 USC § 102***

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 1-2, 8-14 and 16 are rejected under 35 U.S.C. 102(b) as being anticipated by Hollowell et al (US Patent no 5,590,061).

4. As per claim 1, Hollowell et al teach

detecting that a processor is overheated [fig. 4; col. 6, lines 53-61; determines if the temperature exceeds the threshold temperature; col. 10, line 66 – col. 11, line 18]; and

automatically removing power from the processor [fig. 4; col. 6, lines 53-61; the processor is turned off; col. 10, line 66 – col. 11, line 18].

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5. As per claim 2, Hollowell et al teach rebooting a computer system, the computer system including the processor [col. 7, lines 15-23].

6. As per claim 8, Hollowell et al teach

a processor interface unit to monitor a thermal trip signal from a processor [fig. 4; col. 6, lines 53-61; determines if the temperature exceeds the threshold temperature; col. 10, line 66 – col. 11, line 18]; and

a voltage regulator module interface to assert a power off signal to a voltage regulator module in response to an assertion of the thermal trip signal [fig. 4; col. 6, lines 53-61; the processor is turned off; col. 10, line 66 – col. 11, line 18].

7. As per claim 9, Hollowell et al teach that the processor interface periodically asserts a stop clock signal to the processor in response to a system reboot following the assertion of the thermal trip signal [col. 11, lines 47-49; repeated ON/OFF].

8. As per claim 10, Hollowell et al teach that a status bit that is set in response to the assertion of the thermal trip signal, the status bit to indicate that the system reboot is in response to the assertion of the thermal trip signal [inherent to the system].

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9. As per claim 11, Hollowell et al teach that

a processor including a thermal trip signal that is asserted in response to an overheat condition [fig. 4; col. 6, lines 53-61; determines if the temperature exceeds the threshold temperature; col. 10, line 66 – col. 11, line 18];

a power management device to receive the thermal trip signal, the power management device to assert off signal in response to an assertion of the thermal trip signal [fig. 4; col. 1, lines 49-53; col. 6, lines 53-61; the processor is turned off; col. 10, line 66 – col. 11, line 18]; and

a power supply device to deliver power to the processor, the power supply device to receive the power off signal and to cease to deliver power to the processor in response to an assertion of the power off signal [fig. 4; col. 6, lines 53-61; the processor is turned off; col. 10, line 66 – col. 11, line 18].

10. As per claim 12, Hollowell et al teach that the power supply device is a voltage regulator module [inherent to the system].

11. As per claim 13, Hollowell et al teach reset logic to cause a system reset in response to the assertion of the thermal trip signal [col. 7, lines 15-23].

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12. As per claim 14, Hollowell et al teach that the reset logic to cause the system reset in response to the assertion of the thermal trip signal after a predetermined period of the time had elapsed following the assertion of the thermal trip signal [time to save the state of the processor; col. 11, lines 9-12].

13. As per claim 16, Hollowell et al teach that the power management device to periodically assert a stop clock signal to the processor during and following the system reset [col. 11, lines 47-554].

***Claim Rejections - 35 USC § 103***

14. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

15. Claims 3-7 and 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hollowell et al (US Patent no 5,590,061) in view of Mittal et al (US Patent no 5,719,800).

16. As per claims 3 and 4, Hollowell et al disclose the invention substantially. Hollowell et al do not disclose expressly about throttling the processor and applying a reduced voltage to the

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processor following the reboot. However, a routineer in the art would know that it is obvious to do so upon rebooting the system as it does not require to run the processor at fast speed and so there is no need to apply full voltage as clearly disclosed by Mittal et al [col. 9, line 65 – col. 10, line 8]. Therefore, it would have been obvious to one of ordinary skill in the art to combine the cited references as both deal with power consumption and turning off the system or rebooting the system. Moreover, Mittal et al clearly shows how one can control the clock and voltage applied to a processor during rebooting process.

17. As per claim 5, Hollowell et al teach rebooting the computer system includes rebooting the computer system after a predetermined period of time following the detection of the overheated condition [time to save the state of the processor; col. 11, lines 9-12].

18. As per claims 6 and 15, Hollowell et al disclose the invention substantially. Hollowell et al do not disclose about rebooting the computer after the processor has cooled to a predetermined temperature. However, Hollowell et al provide enough time to cool down the processor below the threshold before it reboot the system as to save the state of the processor while it is off [col. 11, lines 9-15]. Therefore, it would have been obvious to one of ordinary skill in the art to provide a predetermined time before rebooting the system so that the processor can be cooled to a predetermined temperature.

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19. As per claim 7, Hollowell et al teach detecting for a second time that the processor is overheated [col. 11, lines 47-53; system once more determines that internal system temperature is greater than or equal to the threshold temperature];

automatically removing power from the processor for a second time [col. 11, lines 47-53; power off signal to turn off processor]; and

again rebooting the computer system [col. 7, lines 15-23; turning off the power to the whole computer system].


### *Conclusion*

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Suresh K Suryawanshi whose telephone number is 703-305-3990. The examiner can normally be reached on 9:00am - 5:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Thomas C. Lee can be reached on 703-305-9717. The fax phone number for the organization where this application or proceeding is assigned is 703-746-7239.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-305-3900.

sks  
December 4, 2003

  
THOMAS LEE  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 2100